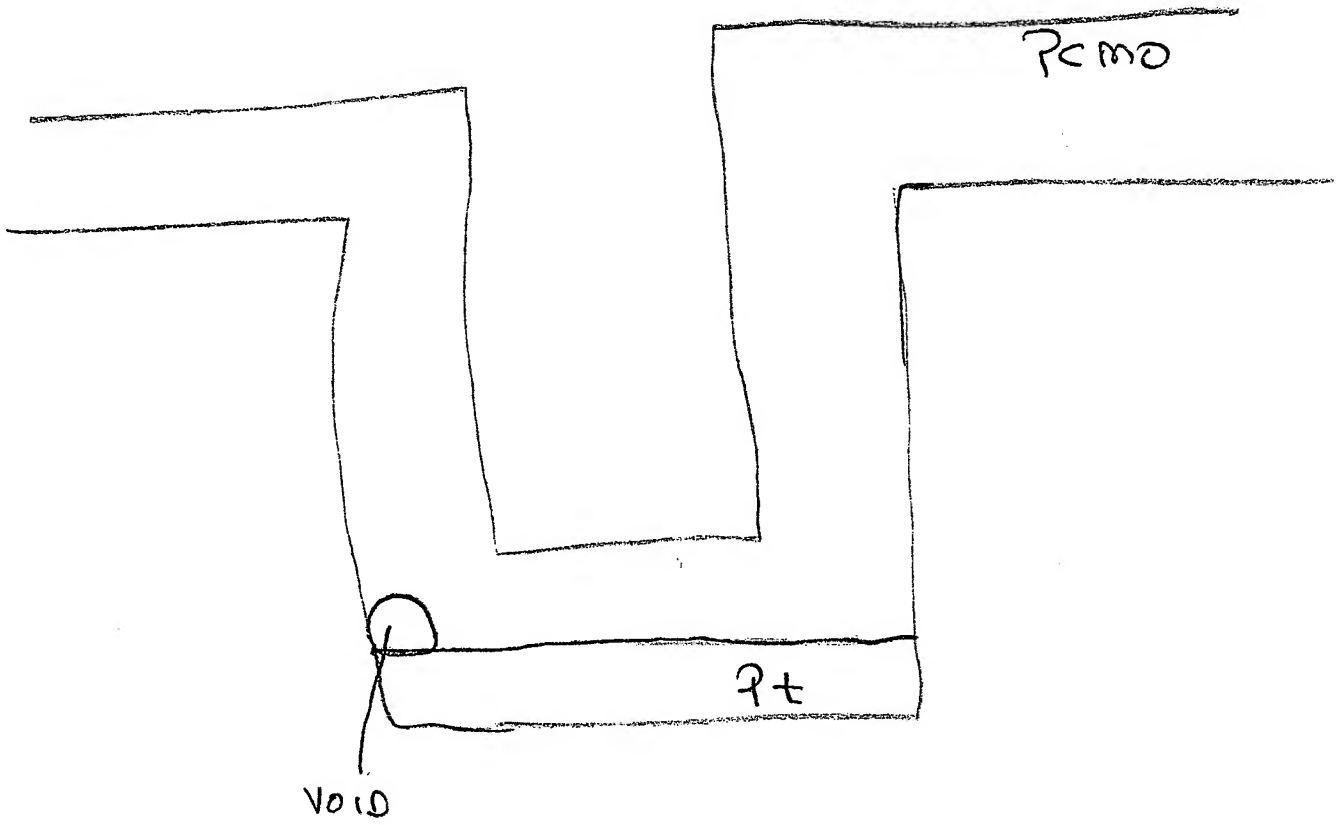


Fig. 1 (prior art)

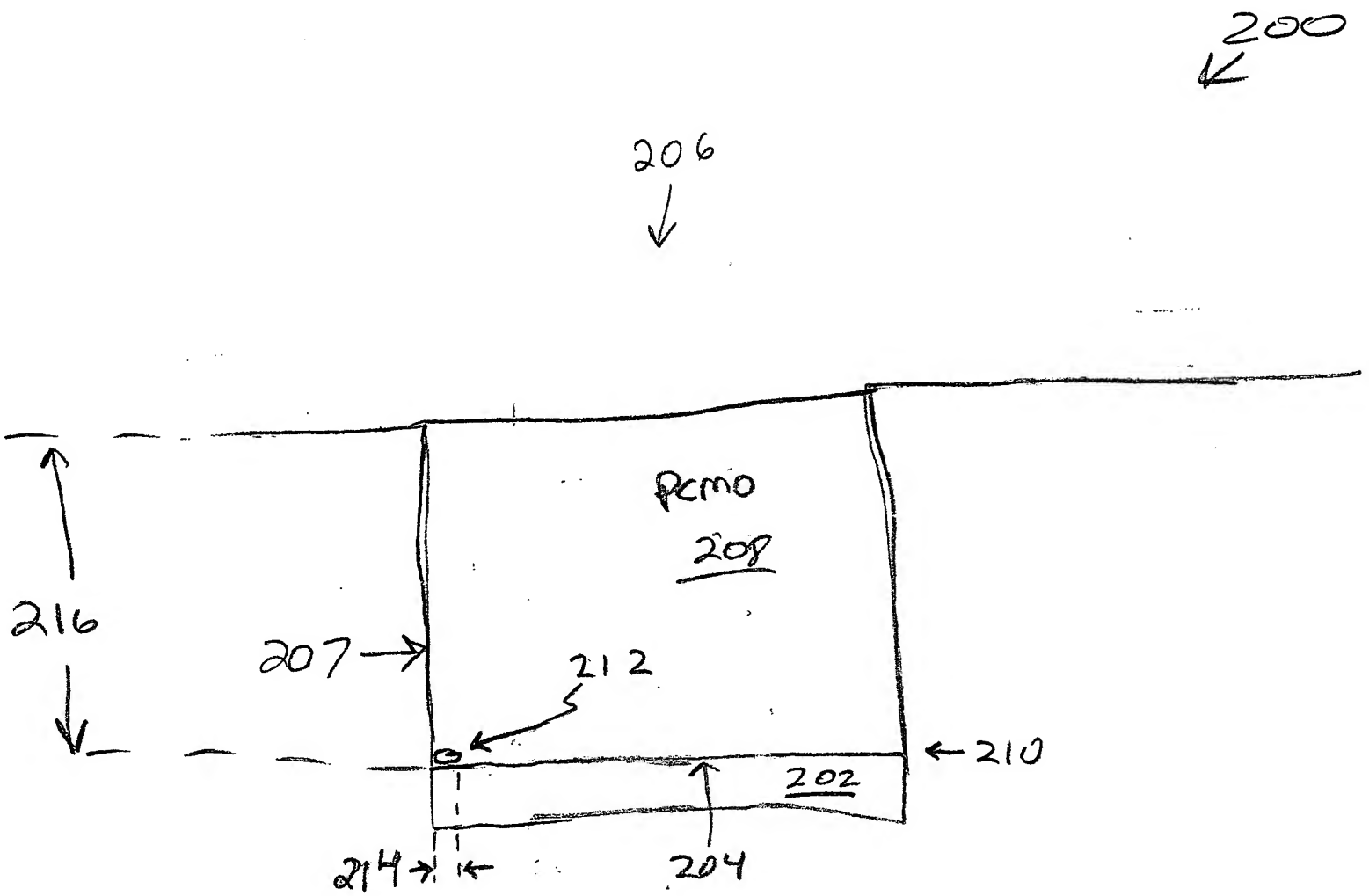
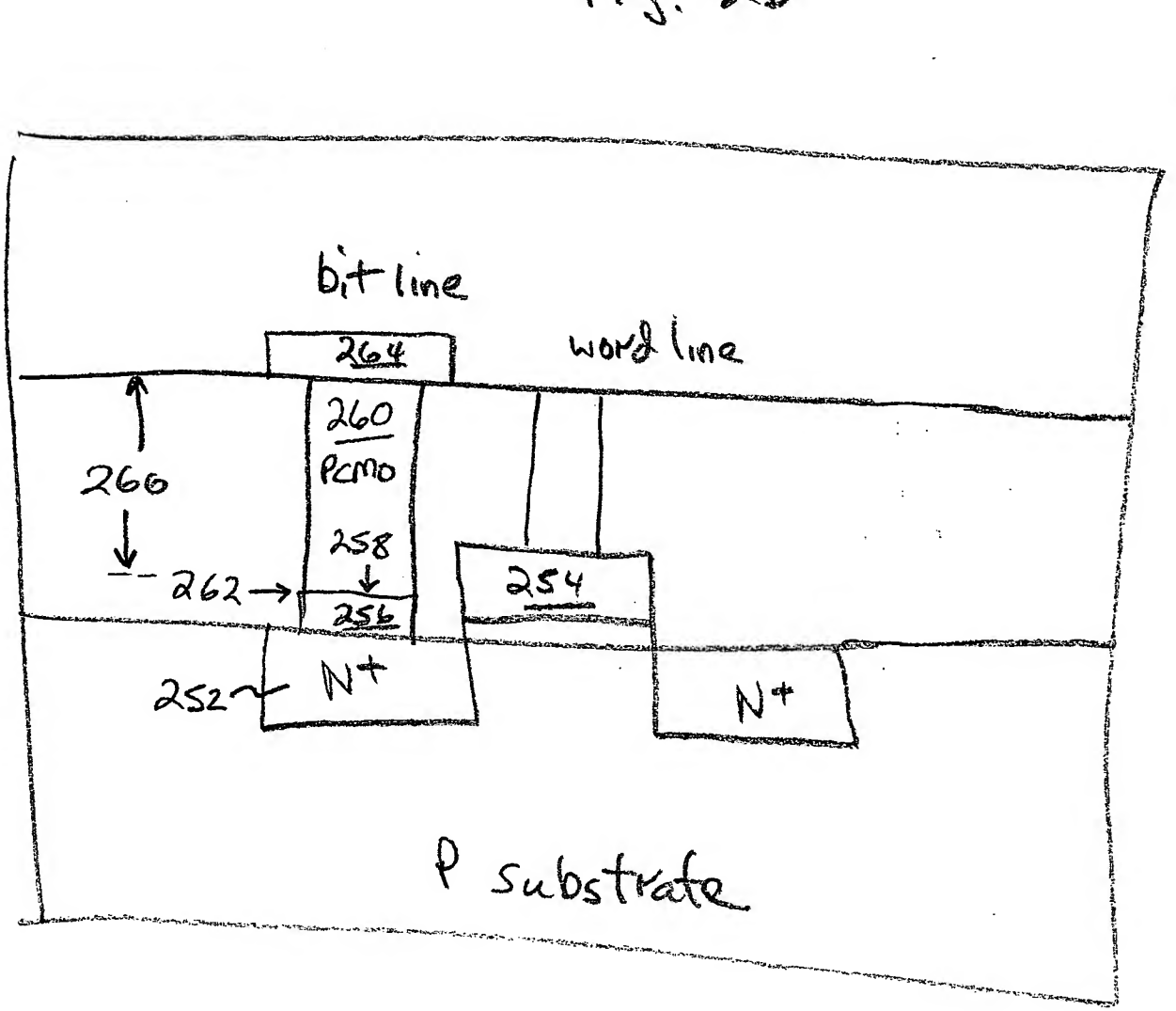


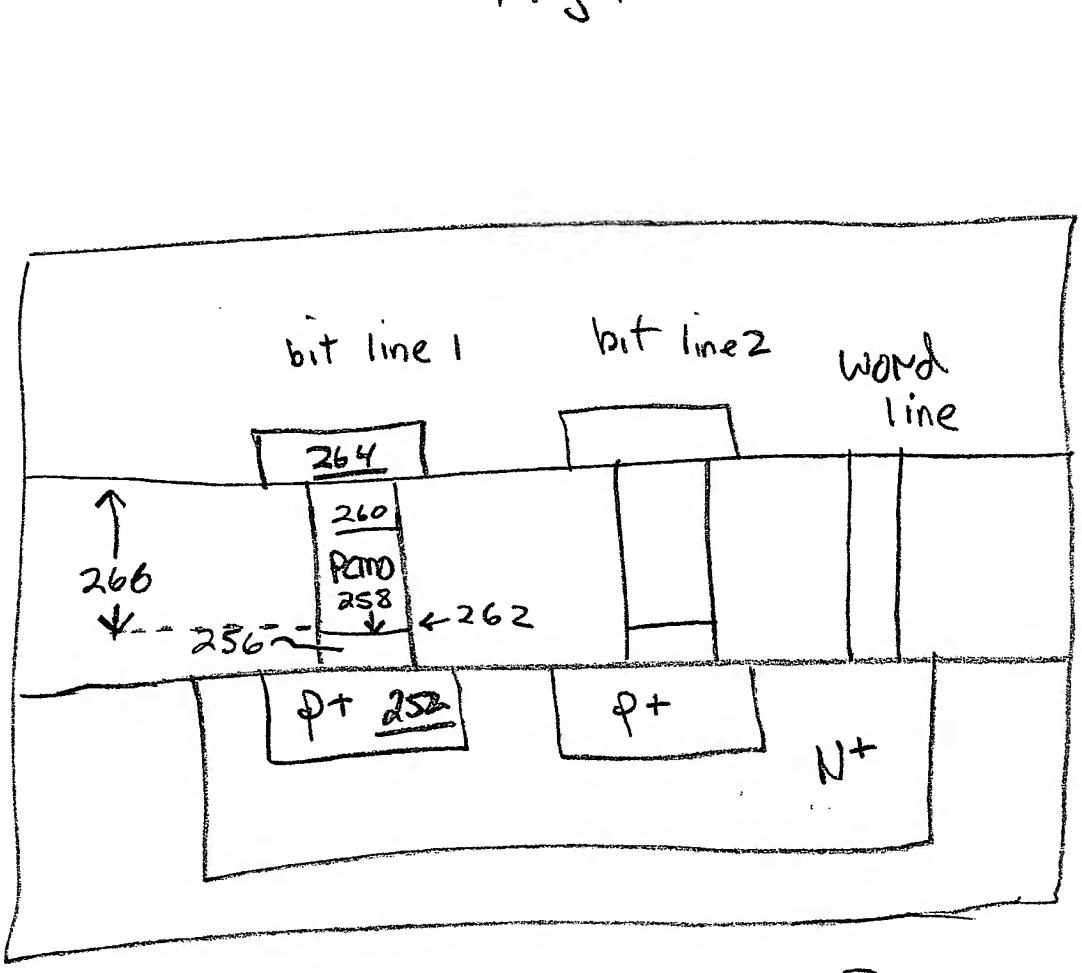
Fig. 2a

Fig. 2b



1R1T memory array

Fig. 2c



1R1D memory array

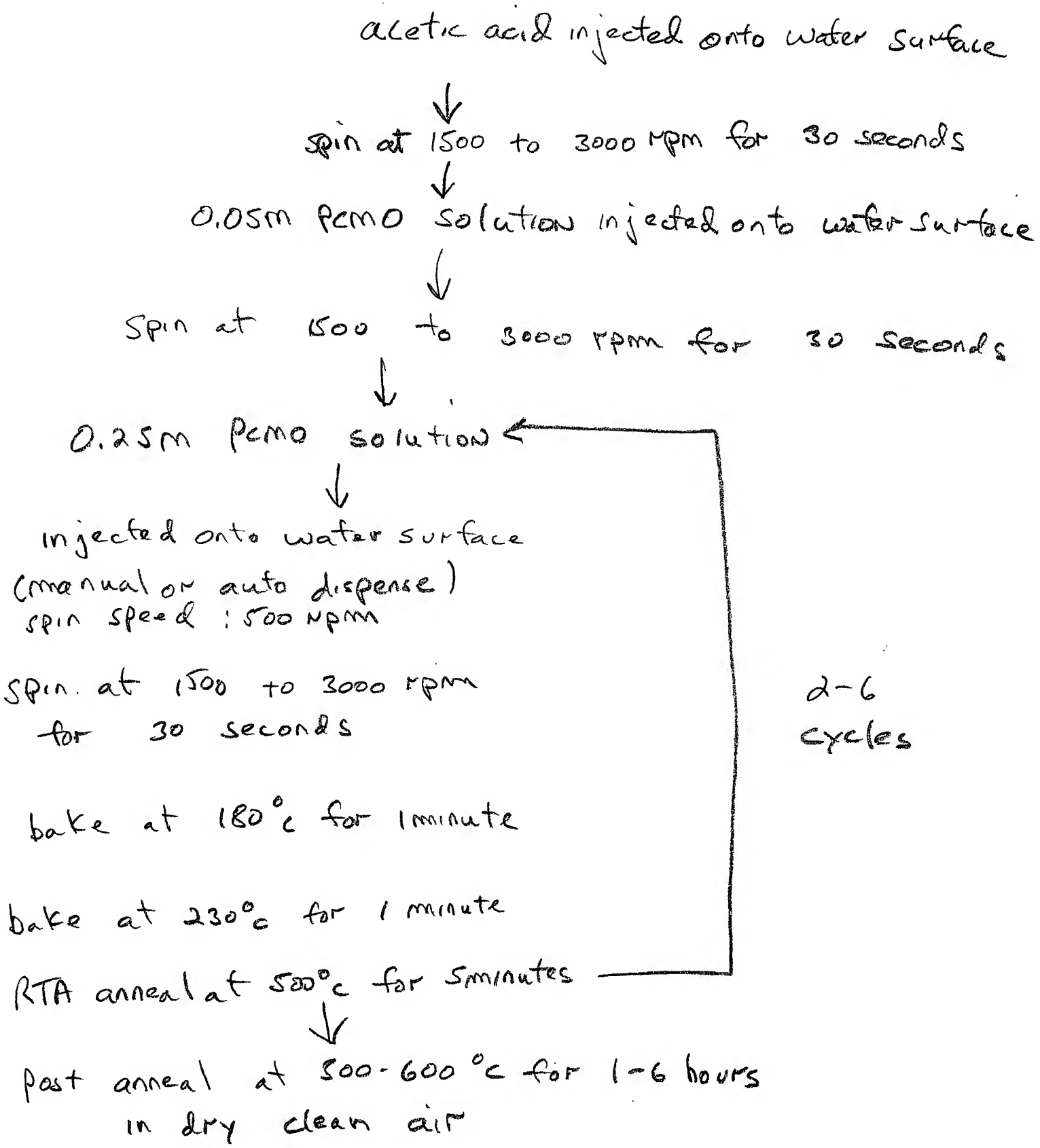

acetic acid injected onto water surface
spin at 1500 to 3000 rpm for 30 seconds
0.05m PCMO solution injected onto water surface
spin at 1500 to 3000 rpm for 30 seconds
0.25m PCMO solution
injected onto water surface
(manual or auto dispense)
spin speed : 500 rpm
spin at 1500 to 3000 rpm
for 30 seconds
bake at 180°c for 1 minute
bake at 230°c for 1 minute
RTA anneal at 500°c for 5minutes
2-6 cycles
post anneal at 300-600 °c for 1-6 hours
in dry clean air

Fig. 3

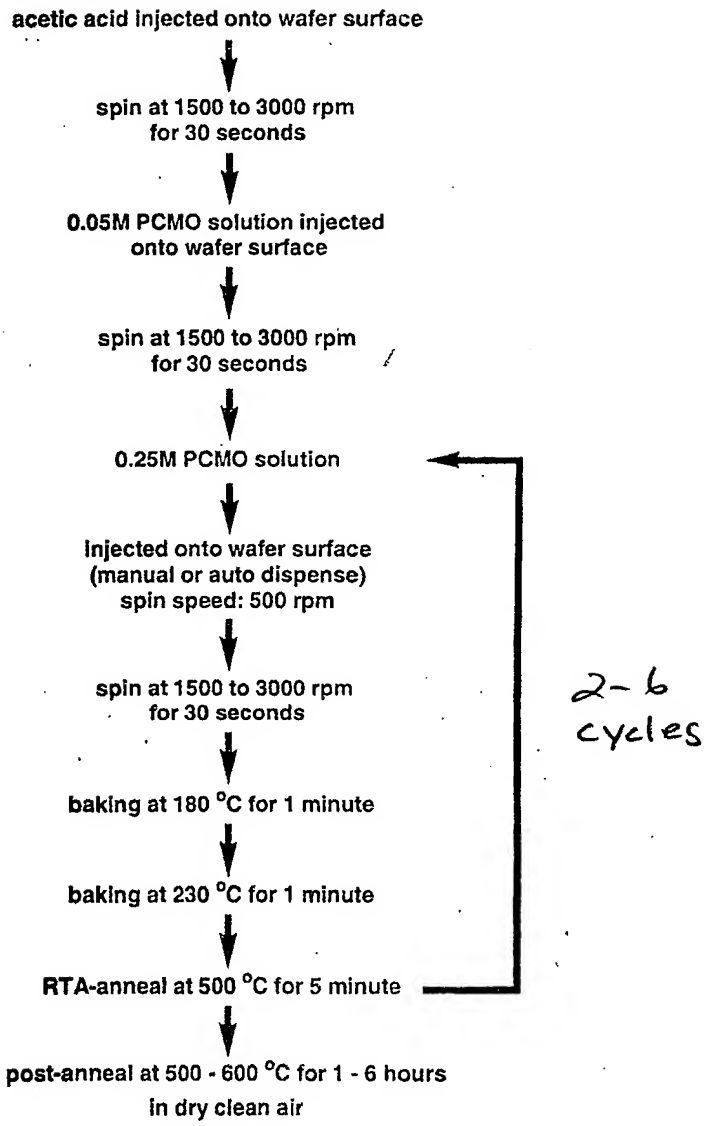

acetic acid injected onto wafer surface
spin at 1500 to 3000 rpm
for 30 seconds
0.05M PCMO solution injected
onto wafer surface
spin at 1500 to 3000 rpm
for 30 seconds
0.25M PCMO solution
injected onto wafer surface
(manual or auto dispense)
spin speed: 500 rpm
spin at 1500 to 3000 rpm
for 30 seconds
baking at 180 °C for 1 minute
baking at 230 °C for 1 minute
RTA-anneal at 500 °C for 5 minute
2-6
cycles
post-anneal at 500 - 600 °C for 1 - 6 hours
in dry clean air

Fig. 4

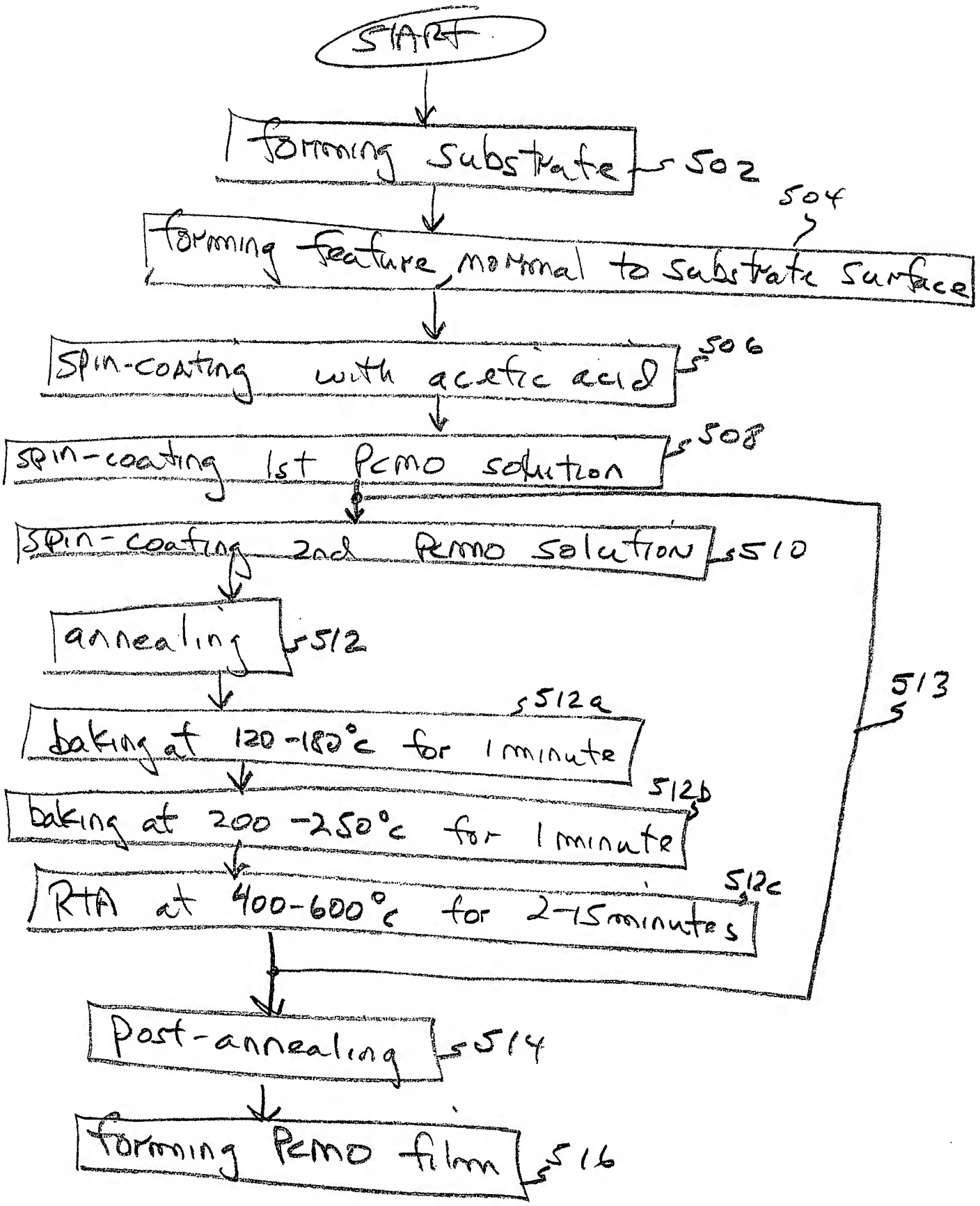

START
forming substrate
502
forming feature normal to substrate surface
504
spin-coating with acetic acid
506
spin-coating 1st PCMO solution
508
spin-coating 2nd PCMO solution
510
annealing
512
baking at 120-180°c for 1 minute
512a
baking at 200-250°c for 1 minute
512b
RTA at 400-600°c for 2-5 minutes
512c
513
post-annealing
514
forming PCMO film
516

Fig. 5